

EXHIBIT 4

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION**

SONOS, INC.,

Plaintiff,

v.

Google LLC,

Defendant.

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NO. 6:20-cv-00881-ADA

**PLAINTIFF SONOS, INC.'S PRELIMINARY INFRINGEMENT CONTENTIONS
AND IDENTIFICATION OF PRIORITY DATES**

Plaintiff Sonos, Inc. (“Sonos” or “Plaintiff”) serves its preliminary infringement contentions and identification of priority dates (“Disclosure”) subject to the Order Governing Proceedings regarding infringement by Defendant Google LLC (“Google” or “Defendant”) of U.S. Patent Nos. 9,967,615 (the “’615 Patent”), 10,779,033 (the “’033 Patent”), 9,344,206 (the “’206 Patent”), 10,469,966 (the “’966 Patent”), and 9,219,460 (the “’460 Patent”) (collectively, “the Asserted Patents”).

Sonos bases this Disclosure on its current knowledge, understanding, and belief as to the facts and information available as of the date of this Disclosure. Sonos has not yet completed its investigation, collection of information, discovery, or analysis relating to this action, and additional discovery, including discovery from Google and third parties, may lead Sonos to amend, revise, and/or supplement this Disclosure. Indeed, discovery in this action has only just begun, Google has not yet produced any documentation regarding the accused products, and Sonos has also not yet had the opportunity to inspect Google’s source code for the accused products. However, the accused functionalities of the accused products are implemented, at least in part, by Google’s proprietary and specialized electronics, firmware, and/or software, and the precise designs, processes, and algorithms used to perform the accused functionalities are held secret, at least in part, and are not publicly available in their entirety. As such, an analysis of

claim of the '460 Patent. Thus, Google has directly infringed and continues to directly infringe each asserted claim of the '460 Patent at least by offering to sell, selling, and/or importing into the United States, Cast-enabled media players with Smart Sound functionality.

Further, on information and belief, Google has directly infringed and continues to directly infringe each asserted claim of the '460 Patent by virtue of installing firmware updates comprising the Smart Sound functionality onto Cast-enabled media players, which constitutes “mak[ing]” an infringing device under 35 U.S.C § 271(a).

Further yet, on information and belief, Google has directly infringed and continues to directly infringe each asserted claim of the '460 Patent by virtue of Cast-enabled media players installed with firmware that comprises the Smart Sound functionality, which constitutes “us[ing]” an infringing device under 35 U.S.C § 271(a).

B. Induced Infringement Under 35 U.S.C § 271(b)

Pursuant to 35 U.S.C. § 271(b), Google also actively, knowingly, and intentionally induced (and continues to actively, knowingly, and intentionally induce) others to make, use, offer to sell, sell, and/or import the Accused Products into the United States. As noted in Sonos’s Complaint, Google had actual knowledge of the Asserted Patents prior to the filing of the Complaint. *See* Dkt. No. 1.

'615 and '033 Patents: As set forth in Exhibits A and B, each computing device installed with one or more of the identified Cast-enabled apps as well as each Cast-enabled display infringes every asserted claim of the '615 and '033 Patents. Despite knowing of the '615 and '033 Patents, Google has actively, knowingly, and intentionally induced (and continues to actively, knowingly, and intentionally induce) others to directly infringe the asserted claims by actively encouraging others to make, use, offer to sell, sell, and/or import the aforementioned devices into the United States in violation of 35 U.S.C. § 271(b).

For example, through Google’s website, advertising and promotional material, user guides, and/or the Google Play Store, Google has actively, knowingly, and intentionally encouraged and induced (and continues to actively, knowingly, and intentionally encourage and

induce) others to install one or more of the identified Cast-enabled apps onto computing devices, and thereby “make[]” an infringing device, which constitutes direct infringement of the asserted claims of the ’615 and ’033 Patents under 35 U.S.C § 271(a).

As another example, through Google’s website, advertising and promotional material, user guides, and Cast-enabled apps, Google has actively, knowingly, and intentionally encouraged and induced (and continues to actively, knowingly, and intentionally encourage and induce) others to install firmware updates onto the Cast-enabled displays, and thereby “make[]” an infringing device, which constitutes direct infringement of the asserted claims of the ’615 and ’033 Patents under 35 U.S.C § 271(a).

As yet another example, through Google’s website, advertising and promotional material, user guides, and/or the Google Play Store, Google has actively, knowingly, and intentionally encouraged and induced (and continues to actively, knowingly, and intentionally encourage and induce) others to “use” computing devices installed with one or more of the identified Cast-enabled apps as well as Cast-enabled displays, which constitutes direct infringement of the asserted claims of the ’615 and ’033 Patents under 35 U.S.C § 271(a).

As a further example, Google has actively, knowingly, and intentionally encouraged and (and continues to actively, knowingly, and intentionally encourage and induce) distributors and retailers to “offer[] to sell” and “sell[]” computing devices installed with one or more of the identified Cast-enabled apps as well as Cast-enabled displays, which constitutes direct infringement of the asserted claims of the ’615 and ’033 Patents under 35 U.S.C § 271(a).

Along with its actual knowledge of the ’615 and ’033 Patents, Google also knew (or should have known) that its actions would induce others to directly infringe the asserted claims of the ’615 and ’033 Patents. For example, Google has supplied and continues to supply Cast-enabled apps to users while knowing that the download and installation of these apps will infringe the asserted claims of the ’615 and ’033 Patents. As another example, Google has supplied and continues to supply Cast-enabled displays (and firmware updates to the Cast-enabled displays) to users and encourages use of the Cast-enabled displays and installation of the

firmware updates while knowing that such use and installation will infringe the asserted claims of the '615 and '033 Patents.

'206 and '966 Patents: As set forth in Exhibits C and D, each computing device installed with one or more of the identified Cast-enabled apps as well as each Cast-enabled display infringes every asserted claim of the '206 and '966 Patents. Despite knowing of the '206 and '966 Patents, Google has actively, knowingly, and intentionally induced (and continues to actively, knowingly, and intentionally induce) others to directly infringe the asserted claims by actively encouraging others to make, use, offer to sell, sell, and/or import the aforementioned devices into the United States in violation of 35 U.S.C. § 271(b).

For example, through Google's website, advertising and promotional material, user guides, and/or the Google Play Store, Google has actively, knowingly, and intentionally encouraged and induced (and continues to actively, knowingly, and intentionally encourage and induce) others to install the Google Home app onto computing devices, and thereby "make[]" an infringing device, which constitutes direct infringement of the asserted claims of the '206 and '966 Patents under 35 U.S.C § 271(a).

As another example, through Google's website, advertising and promotional material, user guides, and/or the Google Play Store, Google has actively, knowingly, and intentionally encouraged and induced (and continues to actively, knowingly, and intentionally encourage and induce) others to "use" computing devices installed with the Google Home app, which constitutes direct infringement of the asserted claims of the '206 and '966 Patents under 35 U.S.C § 271(a).

As yet another example, Google has actively, knowingly, and intentionally encouraged and (and continues to actively, knowingly, and intentionally encourage and induce) distributors and retailers to "offer[] to sell" and "sell[]" computing devices installed with the Google Home app, which constitutes direct infringement of the asserted claims of the '206 and '966 Patents under 35 U.S.C § 271(a).

Along with its actual knowledge of the '206 and '966 Patents, Google also knew (or should have known) that its actions would induce others to directly infringe the asserted claims of the '206 and '966 Patents. For example, Google has supplied and continues to supply the Google Home app to users while knowing that the download and installation of this app will infringe the asserted claims of the '206 and '966 Patents.

'460 Patent: As set forth in Exhibit E, each Cast-enabled media player with Smart Sound functionality infringes every asserted claim of the '460 Patent. Despite knowing of the '460 Patent, Google has actively, knowingly, and intentionally induced (and continues to actively, knowingly, and intentionally induce) others to directly infringe the asserted claims by actively encouraging others to make, use, offer to sell, sell, and/or import Cast-enabled media players with Smart Sound functionality into the United States in violation of 35 U.S.C. § 271(b).

For example, through Google's website, advertising and promotional material, user guides, the Google Home app (among other apps offered by Google), and/or the Google Play Store, Google has actively, knowingly, and intentionally encouraged and induced (and continues to actively, knowingly, and intentionally encourage and induce) others to install firmware updates comprising Smart Sound functionality onto Cast-enabled media players, and thereby "make[]" an infringing device, which constitutes direct infringement of the asserted claims of the '206 and '966 Patents under 35 U.S.C § 271(a).

As another example, through Google's website, advertising and promotional material, user guides, the Google Home app (among other apps offered by Google), and/or the Google Play Store, Google has actively, knowingly, and intentionally encouraged and induced (and continues to actively, knowingly, and intentionally encourage and induce) others to "use" Cast-enabled media players with Smart Sound functionality, which constitutes direct infringement of the asserted claims of the '460 Patent under 35 U.S.C § 271(a).

As yet another example, Google has actively, knowingly, and intentionally induced (and continues to actively, knowingly, and intentionally induce) distributors and retailers to "offer[]" to

sell” and “sell[]” Cast-enabled media players with Smart Sound functionality, which constitutes direct infringement of the asserted claims of the ’460 Patent under 35 U.S.C § 271(a).

Along with its actual knowledge of the ’460 Patent, Google also knew (or should have known) that its actions would induce others to directly infringe the asserted claims of the ’460 Patent. For instance, Google has supplied and continues to supply Cast-enabled media players with Smart Sound functionality (as well as firmware updates) to users while knowing that the use of Cast-enabled media players with Smart Sound functionality will infringe the asserted claims of the ’460 Patent.

B. Contributory Infringement Under 35 U.S.C § 271(c)

Pursuant to 35 U.S.C § 271(c), Google has also contributorily infringed (and continues to contributorily infringe) the asserted claims of the Asserted Patents by supplying software components in the United States to be installed and/or used by users of the Accused Products – each of which is a material component of the Accused Products that has no substantial noninfringing use – with knowledge that the software components were especially made or adapted for use in an Accused Product such that the installation and/or use of the software components would result in direct infringement. As noted in Sonos’s Complaint, Google had actual knowledge of the Asserted Patents prior to the filing of the Complaint. *See* Dkt. No. 1.

’615 and ’033 Patents: Google has contributorily infringed (and continues to contributorily infringe) the asserted claims of the ’615 and ’033 Patents by virtue of the fact that (1) in addition to importing and selling certain computing devices pre-installed with one or more of the identified Cast-enabled apps, Google also supplies these Cast-enabled apps for installation onto computing devices in the United States, and each time a user installs any one of these Cast-enabled apps onto a computing device, the user “makes” an infringing device, and (2) Google also supplies firmware updates for the Cast-enabled displays in the United States, and each time a user installs such a firmware update, the user likewise “makes” an infringing device and thereby directly infringes the asserted claims of the ’615 and ’033 Patents under 35 U.S.C. § 271(a).

The software components included in the Cast-enabled apps and the firmware updates for the Cast-enabled displays are material components of infringing devices that are not staple articles or commodities of commerce suitable for substantial noninfringing use because (1) the only possible use for these software components included in the Cast-enabled apps is to be installed and run on infringing computing devices, and (2) the only possible use for the software components included in the firmware updates for the Cast-enabled displays is to be installed and run on those Cast-enabled displays.

Along with its actual knowledge of the '615 and '033 Patents, Google knew (or should have known) that the software components included in the Cast-enabled apps and the firmware updates for the Cast-enabled displays were especially made or adapted for installation on infringing devices, and that installation of these software components by others resulted in (and continues to result in) direct infringement of the '615 and '033 Patents under 35 U.S.C. § 271(a) because each such installation “makes” a device that meets every element of every asserted claims of the '615 and '033 Patents.

Moreover, as a result of Google’s contributory conduct, other have directly infringed the asserted claims of the '615 and '033 Patents. For example, users have installed the supplied Cast-enabled apps onto Cast-enabled computing devices in the United States, thereby “making” infringing devices. As another example, users have installed the supplied firmware updates onto the Cast-enabled displays in the United States, thereby “making” updated Cast-enabled displays. As yet another example, after installing one of the identified Cast-enabled apps onto computing devices and/or installing firmware updates onto Cast-enabled displays, users have used these infringing devices, which also constitutes direct infringement.

'206 and '966 Patents: Google has contributorily infringed (and continues to contributorily infringe) the asserted claims of the '206 and '966 Patents by virtue of the fact that it supplies the Google Home app in the United States, and each time a user installs the Google Home app onto a computing device, the user “makes” an infringing device and thereby directly infringes the asserted claims of the '206 and '966 Patents under 35 U.S.C. § 271(a). The

software components included in the Google Home app are material components of infringing devices that are not staple articles or commodities of commerce suitable for substantial noninfringing use because the only possible use for these software components is to be installed and run on infringing computing devices.

Along with its actual knowledge of the '206 and '966 Patents, Google knew (or should have known) that the software components included in the Google Home app were especially made or adapted for installation on infringing devices, and that installation of these software components by others resulted in (and continues to result in) direct infringement of the '206 and '966 Patents under 35 U.S.C. § 271(a) because each such installation “makes” a device that meets every element of every asserted claims.

Moreover, as a result of Google’s contributory conduct, other have directly infringed the asserted claims of the '206 and '966 Patents. For example, users have installed the supplied Google Home app onto computing devices in the United States, thereby “making” infringing computing devices. As another example, after installing the Google Home app onto computing devices, users have used these infringing devices, which also constitutes direct infringement of the asserted claims.

'460 Patent: Google has contributorily infringed (and continues to contributorily infringe) the asserted claims of the '460 Patent by virtue of the fact that, in addition to importing and selling Cast-enabled media players with Smart Sound functionality (*e.g.*, the Home Max) that come pre-installed with firmware, Google supplies firmware updates for Cast-enabled media players with Smart Sound functionality in the United States, and each time a user installs such a firmware update, the user “makes” an infringing device and thereby directly infringes the asserted claims of the '460 Patent under 35 U.S.C. § 271(a). The software components included in the firmware updates are material components of Cast-enabled media players with Smart Sound functionality that are not staple articles or commodities of commerce suitable for substantial noninfringing use because the only possible use for these software components is to be installed and run on Cast-enabled media players with Smart Sound functionality.

Along with its actual knowledge of the '460 Patent, Google knew (or should have known) that the software components included in the firmware updates were especially made or adapted for installation on Cast-enabled media players with Smart Sound functionality, and that installation of these software components by others resulted in (and continues to result in) direct infringement of the '460 Patent under 35 U.S.C. § 271(a) because each such installation “makes” an updated player that meets every element of every asserted claims.

Moreover, as a result of Google’s contributory conduct, other have directly infringed the asserted claims of the '460 Patent. For example, users have installed the supplied firmware updates onto Cast-enabled media players with Smart Sound functionality in the United States, thereby “making” updated Cast-enabled media players with Smart Sound functionality, which constitutes direct infringement. As another example, after installing the firmware updates onto Cast-enabled media players with Smart Sound functionality, users have used Cast-enabled media players with Smart Sound functionality, which also constitutes direct infringement of the asserted claims.

II. IDENTIFICATION OF THE PRIORITY DATE FOR EACH CLAIM OF THE ASSERTED PATENTS

Sonos sets forth that the priority date for each asserted claim is at least as early as:

- '615 Patent (claims 1-3, 6-9, 11-15, 18-21, 23-26, 28-29): December 30, 2011
- '033 Patent (claims 1-2, 4, 7-13, 15-16): December 30, 2011
- '206 Patent (claims 1-5, 7 10-19): September 12, 2006
- '966 Patent (claims 1-4, 6-12, 14-20): September 12, 2006
- '460 Patent (claims 1-3, 5-6, 15, 18-19): March 17, 2014

III. DOCUMENT PRODUCTION

Accompanying this Disclosure, Sonos produces, *inter alia*, copies of the file history for each Asserted Patent. The foregoing documents are included in the Bates range SONOS-SVG2-00000001 - SONOS-SVG2-00011279.